TITUSVILLE AMATEUR RADIO CLUB

NEWSLETTER

MAY, 1999

OFFICERS

PRESIDENT: Bud Hughes K4CWG 269-0779
V. PRES.: Ozzie Osband N4SCY 407-LIFTOFF
SECRETARY: Becky Lee KF4HTB 267-9375
TREASURER: Becky Lee KF4HTB 267-9375

CLUB INFORMATION

TARC MEETINGS : Monthly on 4th Tuesday at 1900 hrs at Jaycee Building.
TARC NETS: VIP - Thursdays at 1000 hrs on 146.910
FRIENDSHIP - Thursdays at 1830 hrs. on146.910
MOSQUITO - Wednesdays at 1900 hrs on 28.333
TARC REPEATERS: VHF - 146.910 and146.970. UHF 444.150

PRESIDENT'S CORNER

By Bud Hughes K4CWG

On March 27 of this year TARC held a tailgate event at the Hammock which is located at 2459 Cheney Hwy. The response from vendors and attendees indicates everyone enjoyed the event and are in favor of a repeat. I want to thank all of the guys and gals for your hard work at the tailgate.

At the April 27 club meeting many of the pros and cons of the Fox Lake site versus the Cheney Hwy. site were discussed. After much ado a motion was made to change the location of the Hamfest from the Fox Lake Park site to State Road 50 site, pending the availability of the Cheney site. For those who could not attend the April meeting, your thoughts, comments and input are requested.

I spoke with Eric KU4TF. He gave me June 12 as being the date selected as the next UCF tailgate. If for any reason the date has to be changed, Eric will advise us, and the new date will appear in the June issue of this Newsletter.

Now that Sherry has passed her Advanced Class License maybe things will return to normal around our house. Regular cooking and on time hot meals have once again become the norm. Sherry put in many late night hours studying for this license and believe you me she has earned the upgrade. Sherry's new call is KU4ZO. Our daughter picked out the phonetics "Kinky Uniforms For Zoo Operators.: Needless to say, as a member of this zoo, I am proud of her accomplishments.

TARC will hold the annual Field Day activities at Fox Lake. As in the past the club will depend on your participation in the setup, operating and refreshment preparations.

The club is currently meeting at the Village Inn for the Thursday evening dinner. Come join us.

See you at the May 25 club meeting.

HAPPY BIRTHDAY

MAY BIRTHDAYS

MAY 2 W9LSD DICK DUELL
MAY 6 KC4HMP BARBARA GOEBEL
MAY 10 N1PAW JOE BARNARDI
MAY 13 AF3GH CHARLES SUMMERS
MAY 13 KE4LNS DON McLEAN
MAY 16 WD4EBA PAUL BERNHARDT
MAY 17 KF4JI CARL CHRISTIAN
MAY 19 KC4WZA JANET VAN ALSTINE
MAY 20 K2TNT GEORGE FISCHER
MAY 21 KE4HOD HOWARD ENGLAND
MAY 22 KG4CEB ANTHONY HURKALA
MAY 22 KF4CDK WILLIAM BLUM
MAY 23 KE4MXJ PEDRO LORENZI
MAY 24 K4JYX JOHN ADAMS
MAY 25 KE4BBJ CHARLIE PROSSER
MAY 26 KE4BBP BUBBA STITT
MAY 27 KF4ZOJ GK PACE
MAY 28 WA2BX CARL BEAM
MAY 30 KE4BBM NICHOLAS SARGENTI

WHAT IS TARC?

By Clyde Lee K4EOS

TARC is a group of busy individuals who serve our community in times of disaster and emergencies such as hurricanes and other severe weather, wild fires, etc., assists as needed in annual public events, work hard on club events, and play hard at social events.

Club participation in the public service area includes: Annual Run for Life, Annual Florida bike tour, Annual Solar Sun-day, Jaycee Christmas Parade, Indian River Festival, Jaycee fireworks, and judging of Christmas Boat Show.

Club social activities are:
Sunday morning bike ride, pot luck dinners, Thursday evening dinners, Christmas party, family picnics and Foxhunts.

Monthly and annual functions include:
Monthly club meetings on the fourth Tuesday, bi-annual hamfest/tailgate/flea market, Annual Field Day, Monthly license testing, commercial license testing, annual ham classes, assistance for club members when needed (including equipment installation and transportation) and monthly newsletter.

Club Repeaters: Two 2-meter repeaters (146.910 and 146.970 and another soon to be added on 146.775), also 444.150 repeater, Packet Digipeter, phone patch available to members on all repeaters, and soon to be added severe weather information.

Club Nets: 2 and 10-meter nets, traders net, Mosquito Net and 6 AM Sunday "net" 7.165 KC.

Becky and I are proud to be members of the TARC and enjoy participating in club activities. We cannot understand why more members do not take advantage of club functions and the pleasure of the company of fellow members.

JUST DO IT!

From 5/99 QST "It Seems to Us..."

When was the Golden Age of Amateur Radio? If you're like most hams, your answer is that it was about the time you were first licensed. Oh, that's probably not how you will describe it. You'll say it was the '30s, when home-brew was king (the Depression provided the

incentive to build a station inexpensively, and plenty of free time to do it). Or perhaps it was the '50s, when the sunspots peaked like never before or since and you could work the world with a couple of watts to a piece of wet string (never mind that at the time, TVI forced many amateurs off the air). Maybe it was the '60s, when the amateur satellite era began and the post-Sputnik emphasis on math and science brought tens of thousands of bright young people into our ranks (the AM vs. SSB and incentive licensing fratricides of the period notwithstanding). Possibly it was the '70s, when FM repeaters brought us wonderful new public service capabilities (and until frequency coordination came to be accepted, repeater wars). And so on - we remember the good feelings, and filter out the bad. It seems to be human nature to believe that the time when we first discovered Amateur Radio was a magical time, never to be duplicated.

Here is a contrary view: The Golden Age of Amateur Radio is ***right now.*** And here's the evidence to support that view.

There are exciting new modes to explore. The APRS gurus are finding new applications for this ingenious, amateur-developed tool. This month in QST we highlight another mode developed by amateurs for amateur: PSK31, an HF digital mode that may well revolutionize RTTY operation. PSK31 is a keyboard conversational mode that joins PACTOR, CLOVER, G-TPR, PACTOR II, and the venerable AMTOR in an ever-expanding bag of Amateur Radio tricks for getting data from one point to many others. Want to play with PSK31? If you have a computer, a sound card and an Internet connection you can download the free (!) software and be on the air with it in 15 minutes.

HF digital proponents are not the only ones to make effective use of computers and sound cards. SSTV aficionados have been doing it for years. These tools have brought the two most challenging VHF pursuits, moonbounce and meteor scatter, within the reach of amateurs who have only modest RF hardware. Digital ATV is catching on - and not just as a carbon copy of what the broadcasters are doing. The availability of reasonably priced components for high-speed digital operation is energizing the packet community.

Amateur Radio at the portal to the 21st century is not only about digital modes and software. Home construction is alive and well, thanks in large part to the QRP clubs and the kit projects they sponsor. Even here the Internet plays a positive role: as you build you can compare notes with other builders around the world, who can help you past any rough spots. How did you spend your Christmas season? Doug Hendricks, KI6DS, of the NorCal QRP Club spent his kitting more than 200,000 parts for the sold-out NorCal 20 project. Recognizing the opportunity, several companies have entered the kit market. Restoring and venerating older equipment is another healthy, growing field of endeavor.

There's plenty to keep us interested in new gear, too. Tiny hand-held transceivers sport multiband and scanning features that were unimaginable a few years ago, the range of choice in FM hand-helds and mobiles is mind-boggling, and prices have never been more attractive. The traditional dividing line between HF and VHF is blurring as VHF and even UHF coverage is added to transceivers designed principally for the HF market. HF mobile operation is enjoying a renaissance, thanks to clever, compact equipment designs. Even antennas have improved the current generation of computer designed skyhooks outperform their predecessors and continue to offer a fertile field for experimentation.

What about operating? January's ZL9CI expedition to Campbell Island made more than 96,000 contacts, eclipsing the mark set by VK0IR two years ago by almost 20% with the help of returning sunspots. Ten meters is exciting again, and worldwide DX should burst forth on six meters this fall thanks to the recent proliferation of equipment that covers the band and the increase in countries that grant operating permission there. If

you're an experienced ham with a good station, your biggest problem with DX may be that it's too easy! If that describes you, invent a new challenge for yourself - those QRP kits aren't just fun to build, they're also fun to operate. If your interests are more lofty, you don't have to wait for the launch of Phase 3D; there are plenty of amateur satellites in orbit, and ways to explore "near space" with radio-equipped unmanned balloons.

If we've left out your favorite Amateur Radio pursuit, accept our apologies. There's so much going on, it's impossible to do justice to everything on one page!

No matter what currently excites you about Amateur Radio, and there's bound to be *something,* our admittedly unoriginal advice is: Just Do It. There's never been a better time.

David Sumner, K1ZZ

THE PUBLIC'S PERCEPTION OF THE SAFETY OF RADIO WAVES

From 5/99 QST "OP-ED"

As Amateur Radio operators we need to be particularly sensitive to the fears of the public. As absurd as it may seem to us, many people believe that RF energy is inherently dangerous. A recent series of news articles illustrates how easy it is for a seemingly innocent statement to lead to misperceptions that are difficult and costly to correct. For example.

"Cell phone manufacturers have acknowledged for the first time that their products pose a health risk to users, according to a story in London's *Independent.* Lawyers claim that the admission will pave the way for civil suits against manufacturers, for conditions ranging from tumors, damage to the immune system, and memory loss."--- **http://WWW.wired.com.**

Several cellular telephone manufacturers have applied for patents to protect developments that decrease the exposure of humans to the signals transmitted by their phones. These changes are mainly in the antenna designs. Some of the newest techniques include moving the antenna away from the head when the telephone is held to the ear (as implemented in the popular Motorola Startek phone, for example), and driving multiple active elements within the "rubber duck" style antenna (using a phase relationship with the goal of decreasing the amount of energy transmitted in the direction of the user).

To better make their case to the patent office, some of the companies overstated that these developments would "minimize the health risks associated with using mobile phones." Although this makes for good reading in a patent application, it incorrectly implies that there currently is such a health risk that needs to be reduced.

An immense body of research to date has shown that RF emissions do not pose a health risk if significant heating does not take place in tissue. With a maximum power output of 0.6 W, it is unlikely that a cellular telephone can create such heat. Developments that decrease the amount of absorbed RF energy in the user's tissue are useful, not for health reasons, but to improve the performance of the telephone.

Much of the public has an inherent mistrust of RF energy. People don't know specifically what about radio waves could be harmful but, nevertheless, they are convinced that the danger exists. One problem is the perception that RF is radiation, partially fueled by the use of the term Radio Frequency Radiation. Although this term is correct - it is the radiation of RF from antennas that allows us to communicate - it incorrectly equates RF with radioactive emissions in the minds of many people. Although both forms of energy are correctly called radiation, their biological effects are vastly different. When the frequency of electromagnetic energy is high enough, the radiated field contains enough energy to cause chemical changes in tissue and the term ionizing radiation is used. If the ionized chemicals

are part of critical biological structures such as DNA, bad things can result, including cancer.

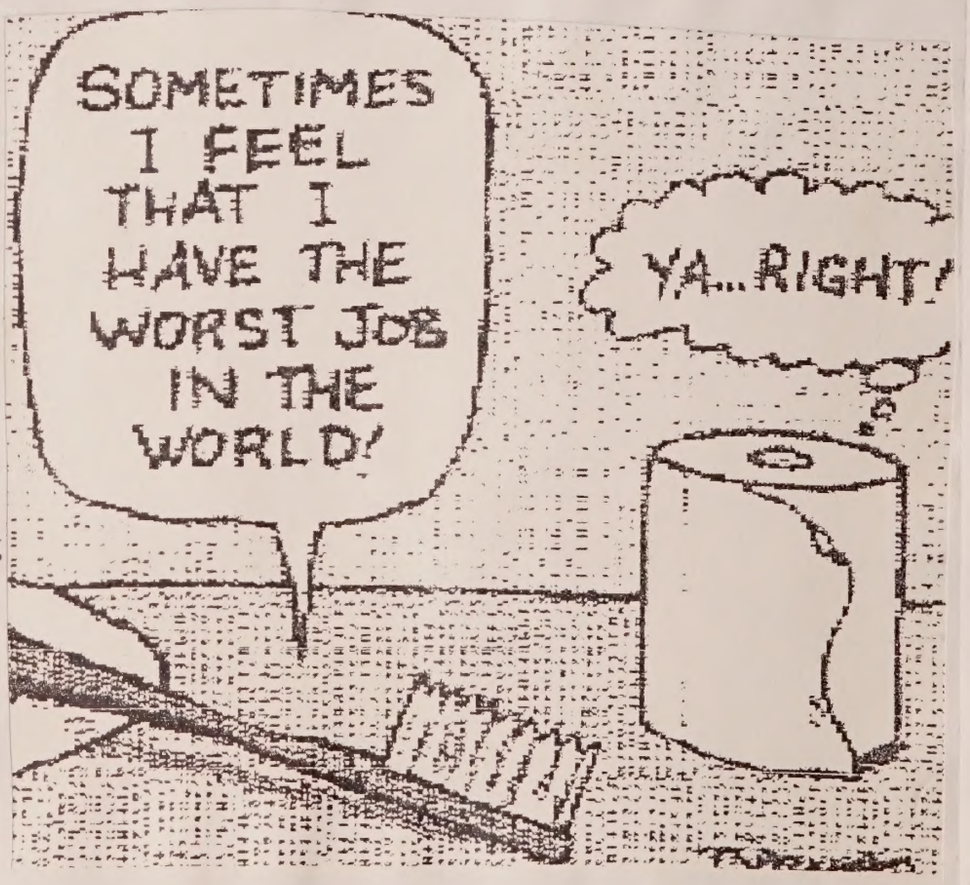
Electromagnetic energy at lower frequencies is incapable of ionizing chemicals and, as such, is called nonionizing radiation. The amount of power in an electromagnetic wave is not related to the ability of that energy to cause ionization: it is solely a function of frequency. The frequency at which energy starts to ionize is in the vicinity of ultraviolet light, or about 10^{15} Hz (1,000,000,000,000,000 Hz). The highest radio frequencies used today are about 100 Ghz (10^{11} Hz, or 100,000,000,000 Hz); common communications frequencies are less than 1 Ghz. Radio waves typically used by hams are more than a million times lower in frequency than the lowest frequency that is classified as ionizing radiation. There is no viable mechanism that science has discovered by which radio signals can cause cancer.

The second thing that breeds mistrust in the minds of the public regarding RF is the microwave oven. Although many people have no idea how these devices work, they do see food get very hot very quickly. Imagine that you are such a person and, as you watch your steak being cooked in minutes by these magical "microwaves:, you are thinking about your neighbor who is transmitting "microwaves" from an antenna that is pointed in your direction. What would you think?

Unlike ionization, RF heating is related to absorption of power. Additionally, as we know from working with different size antennas, the efficiency of absorption in different-size structures is related to requency. Heating biological tissue is a real danger that has been dealt with by the FCC in its recent environmental impact regulations for the Amateur Radio Service (97.13c and OET Bulletin 65 Supplement b), based on our current knowledge and exhaustive calculations, when the FCC guidelines are met, Amateur Radio signals pose no danger to people.

We should take the recent faux pas of some of the cellular telephone manufacturers as a lesson. Our hobby is based on a technology that much of the public distrusts. As long as we follow safe RF-exposure practices, the public is safe from our signals. However, it is a good idea to carefully think about how we word discussions of this nature. Decreasing exposure below what is already known to be a safe level does not make it "safer". It is still just "safe". In particular, it is a bad idea to joke about this issue, even in private. Such jokes (such as "frying the neighbors:) can only be considered funny because we know them to be false. People who do no understand this will not be laughing.

By Gregory Lapin, Ph. D., P.E., N9GL, Chairman, ARRL RF Safety Committee **g.lapin@ieee.org**



ABELL'S ANECDOTES

By Pike, W4EPU

Anybody that has lived in the South for any length of time at all knows about sorghum molasses. In spite of the fact that I didn't know until I was a teenager that there was any other kind of syrup, to me it is still the worlds best.

Sorghum is made from cane very similar to sugar cane, but the juice has its own distinctive, delicious flavor.

I was raised on a farm in Arkansas. There was a sorghum mill in every neighborhood. All of the farmers in the neighborhood would bring their cane to the central sorghum mill for processing. Since hardly anybody had any money, the owner/operator of the sorghum mill would process it for half. The mill had a squeezing machine powered by a team of horses or mules walking in a circle pulling large rollers turning close enough together that when sorghum cane were fed between the rollers, it squeezed the juice out of them. The juice from the squeeze drained into a large container. From there it was transferred into a wood burning cooking pan. The pan, made of copper, was about four feet wide, twelve feet long and some four inches deep. It was sectioned off by partitions about six inches apart. Starting at one end, even number partitions were open on one end and worked through each section. By the time it reached the other end it was cooked syrup. Once the process started, juice entered one end and a continuous stream of syrup emerged from the other. The above is only a backdrop for the following report:

My dad would never raise his own sorghum because he could buy it for probably less than fifty cents a gallon. That is, except one year when he decided to raise about one half acre of cane. Of course we had to cultivate it and hoe the weeds regularly throughout the summer. At harvest time we stripped off the leaves, cut the seed pods off the tops, chopped the cane down, loaded them on a farm wagon, hooked up a team of mules to the wagon and hauled the cane to the mill. Part of the deal was that we had to use our mules to power the squeeze. Even though it made me dizzy to go around in circles for any length of time, I was selected to drive the mules. My brothers fed the cane into the squeeze. Another brother stoked the cooking pan fire. By days end we had made eight gallons of fine sorghum molasses. Of course the mill operator got his half leaving us with four gallons.

We put our four gallons of molasses in the back of the wagon. As many of us who could climbed onto the wagon. The rest of us walked and we headed home. It was dark by the time we arrived home and we were all very tired. We pulled the wagon into the barn, unhooked and fed the mules. We went to get our sorgham out of the wagon only to find out that somewhere along the bumpy country road two gallons of it had turned over and spilled.

We therefore ended up with two gallons of syrup for what seemed like a summers work and certainly one of the hardest days work of my youth. Needless to say we never raised any more sorgham.

PS: If you have never eaten sorghum and would like to try it, it is sold in the gift shops at Cracker Barrel restaurants. 73s es 88s

50/50.....A young man saw an elderly couple sitting down to lunch at McDonalds. He noticed that they had ordered one meal, and an extra drink cup. As he watched, the gentlemen carefully divided the hamburger in half, then counted out the fries, one for him, one for her, until each had half of them. Then he poured half of the soft drink into the extra cup and set that in front of his wife. The old man then began to eat, and his wife sat watching, with her hands folded in her lap. When the young man offered to buy them another meal, the old man replied "oh no. We've been married 50 years, and everything has always been and will always be shared 50/50." The young man asked the wife is she was going to eat. She replied, "Not yet. It's his turn with the teeth."

BOARD MINUTES OF APRIL 20 MEETING

Don McLean, KE4LNS, custodian of the repeaters, was voted an honorary membership.

Les, K4SJC and Don, KE4LNS explained the equipment needed and their functions to add severe weather information to the repeaters.

A motion was made and carried to buy the recommended equipment with FEMA funds. After installation, this equipment will do the following: Will give up to the minute information on temperature, barometer, wind speed and direction, and NOAH weather reports, including an alert to severe weather.

APRIL MINUTES

By Becky Lee, KF4HTB

After the usual opening ceremonies, Donna of the Jaycees told everyone about a Tupperware party to be held at the Jaycee club house on May 6 at 7:30.
This party is to raise money for the fireworks fund. She asked everyone to attend.

Bill, W2SDB played Happy Birthday and other tunes on his harmonica. Bud, K4CWG praised Bill for the hours of time he spends visiting nursing homes and playing for the patients.

Bud, K4CWG introduced Ron Thorstatad, Transformation Coordinator for the City of Titusville, who explained to the club what his duties are, and asked for help at the Fourth of July celebration which begins at 1 PM and ends after the fireworks. He passed around printed information on his duties as well as information on the Fourth of July celebration activities, including a sheet to be filled out and returned to him by anyone who can help at this event.

After the break Bud, K4CWG thanked Jose and Carol for instigating the March tailgate/flea market. He thanked all who participated. After much discussion, it was voted to have two annual tailgate/flea market event in March and November instead of one big annual hamfest at Fox Lake Park in November

New members were voted in.

Les, K4SJC explained what the new weather equipment for the repeaters will do.

Ken, KD4HNW reported on the progress of the new North end repeater, relating the problem with roots in installing the underground cables.

TREASURERS REPORT
By Becky Lee KF4HTB

Balance Forward From 1998	$6634.75
Deposits Year to Date	2149.07
TOTAL INCOME	**8783.82**
Expenditures	2565.62
BALANCE AS AT 4/30/99	**6218.20**
FEMA Escrow	943.92
BALANCE-CLUB FUNDS	**$ 5274.28**

I BET I KNOW WHY JIM DOESN'T LIKE TO DO HIS OWN REPAIR ON HIS RADIOS

TITUSVILLE AMATEUR RADIO CLUB
P. O. BOX 73
TITUSVILLE FL 32781-0073

MEMBERSHIP UPDATE

Total membership: 245 (174 regular, 59 family, 12 honorary)

NEW MEMBERS: None

RENEWALS:

KEFBBH JIM PREVATT
KE4HOG NANCY PREVATT
KE4BBJ CHARLIE PROSSER
KE4BBK ORA PROSSER
KD4CBV GEORGE BORTLE
KE4BBL CINDY BORTLE
KE4BBMNICHOLAS SARGENTI
KE4KCT CHARLIE FROST
KE4MXB BONNIE FROST
N4MCZ ROD IWAN
KF4MUV PATTY KING
KF4QML KEVIN ZIMMERMAN
N4WIN WALT FOSTER
N1YXL TOM KELLY
KR4YZ CHARLES FAGEL

HAMFESTS:

7/24	Milton
9/11-12	Melbourne
9/25	Daytona Beach
9/26	New Port Richie
10/2	Sunrise
10/2	Maitland
10/9	Tampa
10/16	Starke
10/16-17	W. Palm Beach
10/29-30	Jacksonville
11/6	Sorrento
11/13	Port St. Lucie
11/20-21	Tampa
12/4	Okeechobee
12/11	Lake City